

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection**

N131541196

FACILITY: LOUISIANA-PACIFIC CORP SAGOLA PLANT		SRN / ID: N1315
LOCATION: N8504 HIGHWAY M-95, SAGOLA		DISTRICT: Upper Peninsula
CITY: SAGOLA		COUNTY: DICKINSON
CONTACT: RICH MENARD , PLANT ENVIRONMENTAL MANAGER		ACTIVITY DATE: 08/17/2017
STAFF: Sydney Bruestle	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled onsite inspection to verify compliance with MI-ROP-N1315-2013 and all other applicable state and federal air quality regulations		
RESOLVED COMPLAINTS:		

On August 17, 2017 I (Sydney Bruestle) performed an scheduled onsite inspection of Louisiana Pacific (LP) located at N8504 Highway M-95, Sagola, MI. While onsite I met with Mr. Rich Menard and Mr. Joe Bal. They took me on a site walk through and provided me with records. LP holds a renewable operating permit (ROP) with the Michigan Department of Environmental Quality- Air Quality Division, MI-ROP-N1315-2013 and is a major source of Carbon Monoxide (CO), Particulate Matter (PM), and Formaldehyde (a Hazardous Air Pollutant (HAP)).

Facility Description:

LP manufactures resin-bonded particle board. Processes onsite include log storage and debarking equipment, a log flaker, three flake dryers with cyclone collectors, wet electrostatic precipitators, a regenerative thermal oxidizer (RTO), one wood bark fired GEKA Thermal Oil Heater, a mat forming line and board press with a regenerative catalytic oxidizer (RCO) for pollution control, cold cleaners, and four baghouses serving various sawing and sanding operations.

The facility is subject to 40 CFR Part 63 Subpart DDDDD, Maximum Achievable Control Technology (MACT) Standards for industrial, commercial, and institutional boilers and process heaters (Boiler MACT). LP is also subject to 40 CFR Part 63 Subpart DDDD, National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. There are several small (<500 HP) emergency generators onsite that are subject to 40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants Stationary Reciprocating Internal Combustion Engines (RICE MACT).

LP's compliance status with the requirements of MI-ROP-N1315-2013 and all other applicable state and federal air quality regulations is evaluated below:

Requirements from MI-ROP-N1315-2013:

Source Wide Conditions:

Source Wide Conditions	Material Limits	Monitoring/Record Keeping	Reporting	Other Requirements
LP-Sagola	Shall not produce more than 310,000 tons of finished products per 12-month rolling time period as determined at the end of each calendar month	Shall keep records of fugitive dust control activities Shall keep monthly and previous 12 month rolling production records Shall keep records of the inspection and maintenance program	Prompt reporting Semiannual reports annual certification Excursion/Exceedance report Semiannual report of deviations monitor downtime	Shall implement a fugitive dust control plan Shall carry our maintenance inspection program
Reviewed	Records from January 2017 show the 12 month rolling time period total finished product to be 245,463 tons	Yes	Yes	Yes
Compliance Status	Compliance			

Emission Units:

EUTOH-WOOD

Description: 60 million BTU per hour heat input GEKA Thermal Oil Heater, fired with wood and bark

Pollution Control Equipment:

- Multiclone

Emission Unit	Emission Limit	Material Limit	Process/Operational Restrictions	Design/Operational Restrictions	Testing/Sampling	Monitoring/Record Keeping	Reporting	Other Requirements
EUTOH-WOOD	PM 11.55 pph PM10 11.5 pph NOx 16.8 pph CO 28.6 pph VOC 0.50 pph	The permittee shall only burn wood and bark in EUTOH-WOOD. Shall not burn more than 30,660 tons of dry fuel in EUTOH-WOOD per 12-month rolling time period as determined at the end of each calendar month.	Visible emissions shall be less than or equal to 20 percent except for one 6 minute period per hour of not more than 27 percent	Shall not operate when fired with wood/bark, unless the multiclone and electrified filter bed are operating properly	Shall be maintained on file for 5 years every five years verify NOx, CO, VOC, and PM10 emission rates from EUTOH-WOOD	Conduct visible emission (VE) readings of the electrified filter bed (EFB) dust collectors daily for one minute each at 15 second intervals. Records of Inspection and Maintenance program. Shall keep monthly and previous 12 month rolling fuel usage records in tons dry fuel.	Report Deviations Semiannual reports Annual ROP certification	Shall carry out an inspection and maintenance program shall comply with requirements of 40 CFR Part 63 Subpart DDDDD National emission standards for major sources: industrial commercial and institutional boilers and process heaters.
Reviewed	Results from Stack test done on January 27, 2015 and January 31, 2017 NOx: 10.17 pph CO: 9.4 pph PM: 0.004 pph VOC: 0.11 pph	Records from January 2017 report a 12 month rolling time period use of dry fuel in the thermal oil heater to be 16,667 tons	VE records are kept daily	Yes	Yes	Yes	Yes	Yes
Compliance Status	Compliance							

EUTOH-NG

Description: A 24 million BTU per hour heat input GEKA Thermal Oil Heater, fired with natural gas

Pollution Control: Good Combustion Practice

Emission Unit	Emission Limits	Monitoring and Record Keeping	Reporting	Other Requirements
EUTOH-NG	PM 0.17 pph PM10 0.17 pph Nox 2.83 pph	Records shall be maintained on file for a period of 5 years. Shall keep	Shall report deviations promptly. Semiannual reporting of monitoring	Shall carry out an inspection and maintenance program, including the keeping of a daily log or checklist for natural gas

	CO 1.98 pph VOC 0.129 pph	records of the inspection and maintenance program	and deviations Annual certification of compliance	burner to assure that the natural gas burner are maintained and operated in a satisfactory manner
Reviewed	Boiler maintenance and annual tune up done	Yes	Yes	Yes
Compliance Status	Compliance			

EUGRAVEL

Description: Gravel cleaner for the electrostatic filter bed

Pollution Control: Baghouse dust collector

Emission Unit	Emission Limits	Process/ operational restrictions	Design/ equipment parameters	Monitoring/ record keeping	Reporting	Other requirements
EUGRAVEL	PM 0.1 lb/1000 lb exhaust gas PM 0.1 pph PM10 0.1 lb/1000 lbs exhaust PM10 0.1 pph	Visible emissions from EUGRAVEL shall not exceed a six minute average of 5 percent opacity	The permittee shall not operate EUGRAVEL unless the associated baghouse is operating properly	Shall keep records of the inspection and maintenance program	Shall report deviations promptly Semiannual reporting of monitoring Annual Certification of compliance	Shall carry out inspection and maintenance program
Reviewed	Yes					
Compliance Status	Compliance					

EUPRESS

Description: Press system including the mat forming line and the board press

Pollution Control: Regenerative Catalytic Oxidizer (RCO)

Emission	Process/	Design/	Testing/	Monitoring/	Other

EUPRESS	NOx 43 pph NOx 155.0 tpy CO 0.51 lb/TFP VOC 3.44 pph VOC 12.4 tpy PM 0.072 lb/TFP PM10 0.072 lb/TFP Formaldehyde 5.91 pph	an hourly average minimum combustion chamber temperature of 800 degrees (RCO) or 1400 degrees (RTO) or not less than the last compliance test temperature that met the applicable VOC emission limitation during operation of the press based on a one hour average for the RCO or RTO that controls the EUPRESS emission unit	Shall not produce product in EUPRESS unless the RCO or RTO is operating properly	Within the first 5 years of issuance of MI-ROP-N1315_2013 and every 5 years thereafter, verification of NOx, CO, VOC, PM-10, and formaldehyde emission rates from EUPRESS, by testing will be required	Shall monitor and record the RCO/RTO on a continuous basis with instrumentation acceptable to air quality division shall keep monthly and 12 month rolling NOX records for EUPRESS shall keep monthly and 12 month rolling VOC records for EUPRESS Shall keep records of inspection and maintenance program	Shall report deviations promptly Semiannual reporting of monitoring and deviations Annual Compliance Certification my March 15 for the previous calendar year	Shall carry out an inspection and maintenance program
Reviewed	NOx 50.9 tpy (January 2017) NOx Stack Test July 8, 2014: 7.81 lb/hr CO Stack Test July 8, 2014: 4.42 lb/hr VOC Stack test 2014: 1.76 lbs/hr VOC: 7.1 tpy (January 2017) PM (stack test 2014): 0.024 lb/TFP Formaldehyde (Stack test 2014): 1.19 lb/hr	Yes					
Compliance Status	Compliance						

EUFORMING

Description: The forming line system includes the blenders, formers, flying cutoff saw, and forming line.

Pollution Control: Baghouse dust collector. This is a CAM subject unit.

Emission Unit	Emission Limits	Process/ Operational Restrictions	Design/Equipment Parameters	Monitoring/Record Keeping	Reporting	Other requirements
					Report deviations	

EUFORMING	PM 0.1 lb/1000 lbs exhaust gas PM 0.9 pph PM-10 0.01 lb/1000 lbs exhaust gas PM10 0.9 pph	Visible emissions from EUFORMING shall not exceed a six-minute average of five percent opacity	Shall not operate the pneumatic material delivery system of EUFORMING unless the associated baghouse is operating properly	Shall conduct visible emission (VE) Readings of the baghouse dust collectors daily for one minute each at 15 second intervals (conducted during daylight hours)	promptly annual certification of compliance excursion/exceedance reports summary or monitor down time Semiannual reporting of monitoring and deviations	Shall carry out an inspection and maintenance program
Reviewed	Yes					
Compliance	Compliance					

Flexible Groups:

FGDRYERS:

Description: Three single pass wood flake dryers, each with a process cyclone

Emission Units: EUFLAKE1, EUFLAKE2, and EUFLAKE3

Pollution Control:

- Wet electrostatic precipitators
- Regenerative Thermal Oxidizer

Flexible Group	Emission Limits	Material Limits	Process/ Operational restrictions	Design/ Equipment Parameters	Testing/ Sampling	Monitoring/ Record Keeping	Reporting	Other Requirements
	NOx 0.62 lb/TFP Hardwood NOx 1.24 lb/TFP softwood	Shall not utilize more than 60	Visible emission from FGDRYERS during normal operation (excluding the bake out time period) shall not exceed a six-minute average of 5 percent		Within in first 5 years of issuance of ROP and every five years thereafter. Verify NOX, CO, VOC, PM10, and	Shall monitor and record the RTO combustion chamber temperature and the volumetric flow rate through the RTO on a continuous basis with instrumentation acceptable to AQD Shall keep monthly and	Report	

	Formaldehyde 6.8 pph		217,000 actual cubic feet per minute only if FGDRYERS is operating	DEQ and approved by the district supervisor	average sulfur dioxide usage records for FGDRYER Shall keep records of the Inspection and Maintenance Program	
Reviewed	Reviewed Emission Records onsite. Facility is emitted 69.8 tpy NOx in January 2017 and 74.3 tpy NOx in July 2017. Stack test results from June 2017 appear to be in compliance with permit limits	Yes				
Compliance Status	Compliance					

FGSANDER1

Description: A Baghouse controlling particulate emissions from EUSAWLINE, EUTGPATTERN, and EUSANDERFGSANDER is a CAM subject unit subject to the requirements of 40CFR, Part 64. The CAM subject pollutant for this emission unit is PM-10/

Emission Units: EUSAWLINE, EUTGPATTERN, and EUSANDER

Pollution Control: Baghouse dust collector.

Flexible Group	Emission Limits	Process/ Operational Restrictions	Design/ Equipment Parameters	Monitoring/ Record Keeping	Reporting	Other Requirements
				Shall conduct visible emission readings of the baghouse dust		

FGSANDER1	PM 0.01 lb/1000 lb exhaust gas PM 0.68 pph PM10 0.01 lb/1000 lb exhaust gas PM10 0.68 pph	Visible emissions from FGSANDER1 shall not exceed a six-minute average of 5 percent opacity	Shall not operate the pneumatic material delivery system directly leading to FGSANDER1 unless the associated baghouse id operating properly	collectors daily for one minute each at 15 second intervals shall monitor and record the differential pressure on the baghouse once per 12 hour shift. The differential pressure shall be maintained between .1 and 5.0 inches H2O Shall keep records of the Inspection and Maintenance Program	Prompt reporting Semiannual reports annual certification Excursion/Exceedance report Semiannual report of deviations monitor downtime	Shall carry our maintenance inspection program
Reviewed	Yes					
Compliance Status	Compliance					

FGSANDER2

Description: A baghouse controlling particulate emissions from EUTGPATTERN and EUSANDERFGSANDER2 is a CAM subject unit

Emission Units: EUTGPATTERN and EUSANDER

Pollution Control: Baghouse dust collector

Flexible Group	Emission Limits	Process/ Operational Restrictions	Design/ Equipment Parameters	Monitoring/ Record Keeping	Reporting	Other Requirements
FGSANDER2	PM 0.01 lb/1000 lb exhaust gas PM 1.24 pph PM10 0.01 lb/1000 lb exhaust gas PM10 1.24 pph	Visible emissions from FGSANDER1 shall not exceed a six-minute average of 5 percent opacity	Shall not operate the pneumatic material delivery system directly leading to FGSANDER2 unless the associated baghouse id operating properly	Shall conduct visible emission readings of the baghouse dust collectors daily for one minute each at 15 second intervals shall monitor and record the differential pressure on the baghouse once per 12 hour shift. The differential pressure shall be maintained between .1 and 5.0 inches H2O Shall keep records of the Inspection and Maintenance Program	Prompt reporting Semiannual reports annual certification Excursion/Exceedance report Semiannual report of deviations monitor downtime	Shall carry our maintenance inspection program
Reviewed	Yes					
Compliance Status	Compliance					

Compliance

FGMAIN1

Description: A baghouse controlling particulate emissions from EUSAWLINE, EUTGPATTERN, and EUSANDERFGMAIN1 is a CAM subject unit

Emission Units: EUSAWLINE, EUTGPATTERN, and EUSANDER

Pollution Control: Baghouse dust collector

Flexible Group	Emission Limits	Process/ Operational Restrictions	Design/ Equipment Parameters	Monitoring/ Record Keeping	Reporting	Other Requirements
FGMAIN1	PM 0.01 lb/1000 lbs exhaust gas PM 1.6 pph PM10 1.6 pph	Visible emissions from FGMAIN1 Shall not exceed a six minute average of 5 percent opacity	Shall not operate the pneumatic material delivery system directly leading to FGMAIN1 unless the associated baghouse id operating properly	Shall conduct visible emission readings of the baghouse dust collectors daily for one minute each at 15 second intervals shall monitor and record the differential pressure on the baghouse once per 12 hour shift. The differential pressure shall be maintained between .1 and 5.0 inches H2O Shall keep records of the Inspection and Maintenance Program	Prompt reporting Semiannual reports annual certification Excursion/Exceedance report Semiannual report of deviations monitor downtime	Shall carry our maintenance inspection program
Reviewed	Yes					
Compliance Status						

Compliance

FGMAIN3

Description: A baghouse controlling particulate emissions from EUSAWLINE, EUFORMING, EUFINISHING1, EUFINISHING2, EUSANDER, EUTGPATTERN, EUHAMMERMILL1, and EUFUELBINFGMAIN3 is a CAM subject unit

Emission Units: EUSAWLINE, EUFORMING, EUFINISHING1, EUFINISHING2, EUSANDER, EUTGPATTERN, EUHAMMERMILL1, and EUFUELBIN.

Pollution Control: Baghouse Dust Collector

Flexible Group	Emission Limits	Process/ Operational Restrictions	Design/ Equipment Parameters	Monitoring/ Record Keeping	Reporting	Other Requirements
FGMAIN3	PM 0.01 lb/1000 lbs exhaust gas PM 1.1 pph PM10 1.1 pph	Visible emissions from FGMAIN3 Shall not exceed a six minute average of 5 percent opacity	Shall not operate the pneumatic material delivery system directly leading to FGMAIN3 unless the associated baghouse id	Shall conduct visible emission readings of the baghouse dust collectors daily for one minute each at 15 second intervals shall monitor and record the differential pressure on the baghouse once per 12 hour shift. The differential pressure shall be maintained between .1 and	Prompt reporting Semiannual reports annual certification Excursion/Exceedance report Semiannual report of	Shall carry our maintenance inspection program

			operating properly	5.0 inches H2O Shall keep records of the Inspection and Maintenance Program	deviations monitor downtime	
Reviewed	Yes					
Compliance Status						

Compliance

FGLAIDG

Description: A Baghouse controlling PM emission from EUSAWLINE, EUFORMING, EUSANDER, EUTGPATTERN, EUHAMMERMILL1, and EUFUELBIN

Emission Units: EUSAWLINE, EUFORMING, EUSANDER, EUTGPATTERN, EUHAMMERMILL1, and EUFUELBIN

Pollution Control: Baghouse dust collector

Flexible Group	Emission Limits	Process/ Operational Restrictions	Design/ Equipment Parameters	Monitoring/ Record Keeping	Reporting	Other Requirements
FGLAIDG	PM 0.01 lb/1000 lbs exhaust gas PM 0.14 pph PM10 0.14 pph	Visible emissions from FGLAIDG Shall not exceed a six minute average of 5 percent opacity	Shall not operate the pneumatic material delivery system directly leading to FGLAIDG unless the associated Baghouse id operating properly	Shall keep records of the Inspection and Maintenance Program	Prompt reporting Semiannual reports annual certification Excursion/ Exceedance report Semiannual report of deviations monitor downtime	Shall carry our maintenance inspection program
Reviewed	Yes					
Compliance Status						

Compliance

FGRICEMACT

Description: Existing Stationary Emergency Engines < 500 HP

Emission Unit: EUFIREPUMP and EUTODIESEL

Flexible Group	Process/ Operational Restrictions	Design/ Equipment Parameters	Monitoring/ Record Keeping	Other Requirements
FGCIRICEMACT	<p>Each CI engine shall be installed maintained and operated in a satisfactory manner.</p> <p>A) Change oil and filter every 500 hours of operation or annually, whichever comes first</p> <p>B) Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first</p> <p>C) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first</p> <p>Shall operate each CI engine in compliance with the emission limitations and operating limitations in Subpart ZZZZ</p> <p>Shall minimize the time spent idling during start up and minimize the startup time of each CI engine to a period needed for appropriate and safe loading of the engine</p> <p>The permittee shall not exceed 100 hours per year for maintenance checks and readiness testing</p> <p>The permittee may operate each CI engine for non-emergency situations for up to 50 hours per year as allowed in 40 CFR 63.6640 (f)(1)(iii)</p>	<p>The permittee shall equip and maintain with a non resettable hour meter to track the number of hours each CI engine operates</p>	<p>Shall keep records of the occurrence and duration of each malfunction or operation or the air pollution control and monitoring equipment</p> <p>Shall keep records of action taken during periods of malfunction to minimize emissions</p> <p>Shall keep records of maintenance conducted</p> <p>Shall keep records of hours of operation recorded through the non-resettable hour meter. Shall document hours spent during emergency and non emergency operations.</p>	<p>The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants as specified on 40 CFR Part 63, Subpart A and Subpart ZZZZ</p>
Reviewed	Yes			
Compliance Status				

Compliance

FGSIRICEMACT

Description: Existing Emergency Engines <500 HP

Emission Units: EUDRYER1BACKUP, EUDRYER2BACKUP, EUDRYER3BACKUP

Flexible Group	Process/ Operational Restrictions	Design/ Equipment Parameters	Monitoring/ Record Keeping	Other Requirements

FGSIRICEMACT	<p>operation or annually, whichever comes first</p> <p>B) Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first</p> <p>C) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first</p> <p>Shall operate each SI engine in compliance with the emission limitations and operating limitations in Subpart ZZZZ</p> <p>Shall minimize the time spent idling during start up and minimize the startup time of each SI engine to a period needed for appropriate and safe loading of the engine</p> <p>The permittee shall not exceed 100 hours per year for maintenance checks and readiness testing</p> <p>The permittee may operate each SI engine for non-emergency situations for up to 50 hours per year as allowed in 40 CFR 63.6640 (f)(1)(iii)</p>	<p>The permittee shall equip and maintain with a non resettable hour meter to track the number of hours each SI engine operates</p>	<p>operation or the air pollution control and monitoring equipment</p> <p>Shall keep records of action taken during periods of malfunction to minimize emissions</p> <p>Shall keep records of maintenance conducted</p> <p>Shall keep records of hours of operation recorded through the non-resettable hour meter. Shall document hours spent during emergency and non emergency operations.</p>	<p>The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants as specified on 40 CFR Part 63, Subpart A and Subpart ZZZZ</p>
Reviewed	Yes			
Compliance Status				

Compliance

40 CFR Part 63, Subpart DDDDD- National Emission Standards for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters:

Boiler MACT emissions testing was performed January 31, 2017 on the Thermal Oil Heater. PM, Mercury, HCL, and CO emission rates were tested and found to be in compliance with the MACT standard emission limits. Boiler tune ups will be done annually on both the wood and natural gas boilers. The facility is documenting all inspections and maintenance done on the boilers.

40 CFR Part 63 Subpart DDDD- National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products:

LP is a major source for HAPs and manufactures plywood/composite wood products; the facility is subject to NESHAP DDDD. The affected source is the collection of dryers, formers, presses, board coolers and other process units associated with the manufacturing of the boards. The compliance date of DDDD for LP was September 28, 2004. It appears the facility is in compliance with the pollution control and work practice requirements outlined in Part 63 subpart DDDD. Examples of actions taken by LP: routine inspections of pollution control equipment, proper operation of pollution control equipment, maintenance records for pollution control equipment.

Emission records for January 2017 and July 2017 and samples of maintenance records and VE readings are included as attachments to the hard file of this report. At the time of my inspection is appeared Louisiana Pacific-Sagola was in compliance with MI-ROP-N1315-2013 and all other applicable state and federal air quality regulations.

NAME Sydney DATE 8-29-17 SUPERVISOR E. J. [Signature]